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Foraging Behaviors of Snowy Egrets (*Egretta thula*) and Yellow-crowned Night-Herons (*Nyctanassa violacea*) in South Louisiana

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Abstract.—We report two previously undescribed foraging techniques used by Snowy Egrets (*Egretta thula*) and Yellow-crowned Night-Herons (*Nyctanassa violacea*) to catch crawfish (*Procambarus* spp.). Snowy Egrets were selecting crawfish that had recently molted their shells and Yellow-crowned Night-Herons were targeting crawfish that were emerging from their burrows. These observations were conducted on commercial crawfish ponds near Catahoula, LA, USA. Received 2 June 1995, accepted 14 August 1995.

Key Words.—Commercial crawfish pond, Crawfish, *Egretta thula*, Foraging, *Nyctanassa violacea*, *Procambarus* spp., South Louisiana, Snowy Egret, Yellow-crowned Night-Heron.

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Many foraging behaviors of Snowy Egrets (*Egretta thula*) and Yellow-crowned Night-Herons (*Nyctanassa violacea*) are well documented in the literature (Meyerriecks 1962; Rogers 1974, 1983; Kushlan 1976, 1978; Riegner 1982, 1983; Niethammer and Kaiser 1983; Hancock and Kushlan 1984). Snowy Egrets are best described as having a diverse foraging repertoire (Hancock and Kushlan 1984), while Yellow-crowned Night-Herons are considered by many to be crustacean specialists (Riegner 1982, 1983; Niethammer and Kaiser 1983; Hancock and Kushlan 1984; Martin and Hamilton 1985). Both species commonly use “stand and wait” and “slowly walking” techniques while foraging (Rogers 1983, Hancock and Kushlan 1984).

On 19 May 1994 near the town of Catahoula (30°10'N, 91°40'W), in St. Martin Parish, Louisiana we encountered large numbers of wading birds foraging in two commercial crawfish (*Procambarus* spp.) ponds (1×0.8 km) which were being drained so that the crawfish would burrow and reproduce. We observed two previously undescribed foraging techniques being used by Snowy Egrets and Yellow-crowned Night-Herons to catch crawfish.

A group of 11 Snowy Egrets was observed “walking slowly” toward us as they foraged in the shallow water of a borrow ditch. These egrets were observed from distances of 2-50 m with 10×50 mm binoculars on a clear morning from 08:45-10:00 CST. From our vantage point, it appeared that each egret would occasionally catch a prey item in the water with a bill thrust, manipulate it by opening and closing its bill two or three times, and either drop or swallow it before resuming “walking slowly” toward us. As the egrets moved closer, we observed that the primary prey was crawfish.

It appeared to us that manipulation of the prey in the egrets' bill was used to test for hardness and select the most palatable items. The carapaces of dropped crawfish appeared to be hard. Crawfish that were swallowed hung limply during bill manipulation, apparently because these crawfish had recently molted. Presumably, these soft-shelled crawfish were easier to swallow than their hard-shelled counterparts. As the Snowy Egrets moved past us, we noted that all 11 were using this shell testing technique when crawfish were caught. Interestingly, fish were not manipulated in this manner; all fish were swallowed immediately.

Throughout the same day, we observed approximately 400 Yellow-crowned Night-Herons evenly distributed over the mud surface of an adjacent crawfish pond which had been drained of most of its water a few days earlier. The only standing water was in borrow ditches on two sides of the pond. These night-herons were spaced about 10 m apart, and all were in "stand and wait" postures facing the sun. We observed birds striking at prey in front of them and either swallowing or resuming "stand and wait" postures. After a night-heron swallowed its prey, or if a capture attempt did not occur within approximately 10 min, the bird would run forward several meters, stop, and resume a "stand and wait" posture. This pattern was repeated by each night-heron as they moved across the pond bottom. Closer observations, from 10-40 m with 10×50 mm binoculars, showed that the night-herons were standing in front of the entrances to crawfish burrows, with their shadows cast behind them rather than over the burrow entrance. Crawfish emerging from burrows were captured and swallowed. The foraging birds then would move to the next burrow entrance, always maintaining the 10 m buffer between themselves and other foraging night-herons. No intraspecific aggression between adjacent night-herons was observed. The night-herons moved west to east in the

morning and east to west in the afternoon, always facing the sun.

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